

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Docket No. : 2699-001-03 Customer No. : 00996
Title : **GATEWAY FOR USING NON-IP DIGITAL PBX TELEPHONE
HANDSETS WITH AN IP CALL CONTROLLER**

Mail Stop Appeal Brief - Patents
Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

**APPEAL BRIEF
37 CFR §41.37**

This is an appeal pursuant to 37 C.F.R. § 1.134(a) from the final rejection by the Examiner, mailed June 8, 2009 rejecting claims 1-19 and 34-46 of the above-referenced patent application. An RCE with amendment was subsequently mailed September 8, 2009, to which the Examiner responded by entering the amendment and rejecting all claims in an action mailed September 22, 2009.

This Appeal Brief is filed within two months from the date of filing the Notice of Appeal under 37 C.F.R. § 41.31.

**37 CFR §1.8
CERTIFICATE OF TRANSMISSION**

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/Lisa Napoli/
Lisa Napoli

4/22/2010
Date

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(C) Real Party in Interest

The real party in interest is Tortel USA LLC, the assignee, having a principal place of business at 221 Commerce Drive Amherst, New York 14228.

(D) Related Appeals and Interferences

Based on information obtained from Tortel USA LLC, and based on information and belief of the undersigned agent, there are no related interferences, appeals, or judicial proceedings known to Appellant, Appellant's agent, or the Assignee, which are related to, directly affect or are directly affected by, or which have a bearing on the decision of the Board in the pending Appeal.

(E) Status of Claims

Claims 1-19 and 34-46 are pending and stand rejected by the Examiner. No claims are allowed. The rejection of claims 1-19 and 34-46 is appealed.

(F) Status of amendments

The Appellant's agent has not amended any of the claims subsequent to the amendment filed with the RCE on September 8, 2009. **Appendix A** includes all the appealed claims 1-19 and 34-46 as currently pending.

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(G) Summary of claimed subject matter

This summary provides cross-referencing to the application as required by 37 C.F.R. § 41.37(c)(v). This cross-referencing is solely to assist the Board in locating portions of the written description and drawings that relate to claimed subject matter and is not meant to be exhaustive or to be used in interpreting the scope of the pending claims.

Claim 1

Claim 1 recites:

“A gateway for using non-IP digital PBX telephone handsets with an IP call controller, comprising:

- (a) one or more handset ports for coupling to one or more non-IP digital PBX telephone handsets;
- (b) an IP port for coupling to an IP network device; and
- (c) a protocol translator circuit that
 - (i) translates non-IP digital PBX telephone call control signals received at a handset port directly into IP telephone call control signals for an IP telephone call controller and delivers them to the IP port; and
 - (ii) translates IP telephone call control signals received at the IP port from an IP telephone call controller directly into non-IP digital PBX telephone call control signals and delivers them to the one or more handset ports; and

wherein the gateway is further configured to automatically determine the operating characteristics of handsets coupled to each handset port by, for each handset port, receiving a signal corresponding a coupled handset; transmitting information identifying the handset to a remote IP server via the IP port; and receiving, from the server, programming information to cause the gateway to work with the handset.”

The elements of this claim are described at least on pages and lines as follows:
“A gateway for using non-IP digital PBX telephone handsets with an IP call controller” is described at page 4, lines 30-31: “In one aspect, the invention is a gateway for using non-IP digital PBX telephone handsets with an IP call controller.”

“One or more handset ports for coupling to one or more non-IP digital PBX telephone handsets,” is described at page 9, lines 3-4 “Refer to Figure, 2, Handset Gateway Internal Design. Each traditional non-IP digital handset 10 is connected to the gateway through a Line interface 31...” and FIG. 2, 31. (Non-IP digital handsets 10 are shown in FIGS 1A, 1B, and 1C.)

“An IP port for coupling to an IP network device,” is shown as 39 on FIG. 2 and is described on page 9, line 31, “...interface to an IP call controller 12 via an Ethernet interface 39.” “A protocol translator circuit,” is shown in the block diagram of FIG. 2 including the CPU 38, ROM 36, and RAM 37.

The first recited function of the protocol translator circuit, “translates non-IP digital PBX telephone call control signals received at a handset port directly into IP telephone call control signals for an IP telephone call controller...” is supported at least at page 7, lines 16-18: “...the gateway has one or more protocol translating circuits that translate non-IP digital PBX call control signals received from a handset into IP call control signals...” The additional limitation of the first recited function, “...and delivers them to the IP port,” is inherent from Figure 2, and also is conveyed at page 7, lines 21-22, “...the gateway preferably includes a general purpose IP router coupled to the IP port in the gateway...”

The second recited function of the protocol translator circuit, “translates IP telephone call control signals received at the IP port from an IP telephone call controller directly into non-IP digital PBX telephone call control signals and delivers them to the one or more handset ports,” is supported at least at page 7, lines 19-21: “The same circuit or a parallel circuit also translates IP call control signals from the call controller into non-IP digital PBX call control signals for a handset coupled to the gateway.”

The additional recited function, “wherein the gateway is further configured to automatically determine the operating characteristics of handsets coupled to each

handset port by, for each handset port, receiving a signal corresponding a coupled handset” is supported at least at page 9, lines 15-17: “First, [the handset gateway] sends a set of signals to each handset port that is designed to produce a different response from each different proprietary handset that the gateway is intended to work with.” “Transmitting information identifying the handset to a remote IP server via the IP port” is supported at least at page 9, lines 24-26: “The gateway then sends via IP to a web server operated by the gateway vendor a set of information identifying the type of IP call controller and the type of handset on each port.” “Receiving, from the server, programming information to cause the gateway to work with the handset” is supported at least at page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller and the handsets.”

Claim 2

Claim 2 recites:

“The gateway of claim 1 wherein the protocol translator circuit is programmable such that it can be programmed to operate properly with each of a plurality of protocols for non-IP digital PBX telephone call control signals.”

The elements of this claim are described at least on page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with ... the handsets.”

Claim 3

Claim 3 recites:

“The gateway of claim 1 wherein the protocol translator circuit is programmable such that it can be programmed to operate properly with each of a plurality of protocols for IP telephone call controllers.”

The elements of this claim are described at least on page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller...”

Claim 4

Claim 4 recites:

“The gateway of claim 2 wherein the protocol translator circuit is programmed by IP download via the IP port.”

The elements of this claim are described at least on page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller and the handsets.”

Claim 5

Claim 5 recites:

“The gateway of claim 3 wherein the protocol translator circuit is programmed by IP download via the IP port.”

The elements of this claim are described at least on page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller and the handsets.”

Claim 6

Claim 6 recites:

“The gateway of claim 4 wherein the download is initiated in response to establishment of an IP session between the gateway and an IP service.”

The elements of this claim are described at least at page 5, lines 17-19: “The download of such parameters or instructions may happen automatically once an IP session is established between the gateway and an IP device.”

Claim 7

Claim 7 recites:

“The gateway of claim 5 wherein the download is initiated in response to establishment of an IP session between the gateway and an IP service.”

The elements of this claim are described at least at page 5, lines 17-19: “The download of such parameters or instructions may happen automatically once an IP session is established between the gateway and an IP device.”

Claim 8

Claim 8 recites:

“The gateway of claim 1 wherein, upon receipt at a handset port of one or more predetermined non-IP digital PBX call control signals, instead of or in addition to translating the signal into an IP telephone call control signal, the protocol translator circuit returns a non-IP digital PBX call control signal to the handset port.”

The elements of this claim are described at least at page 11, lines 1-3 and 9-10: “The gateway can be programmed to handle various features and functions of the non-IP digital handsets rather than simply passing all signals from the handsets on to the IP call controller for handling. ... The gateway can send a signal to the handset to turn on a hold indicator light.”

Claim 9

Claim 9 recites:

“The gateway of claim 1 wherein the one or more non-IP digital PBX handset ports includes a first handset port and a second handset port wherein, upon receipt at the first handset port of one or more predetermined non-IP digital PBX call control signals, instead of or in addition to translating the signal into an IP telephone call control signal, the protocol translator circuit sends a non-IP digital PBX call control signal to the second handset port.”

The elements of this claim are described at least at page 11, lines 11-14:
“Similarly, if a handset user wishes to add another handset on the gateway to a telephone conversation, no signal needs to be passed to the IP call controller. Instead, the signals can be interpreted by the gateway which can itself ring the second handset telephone.”

Claim 10

Claim 10 recites:

“The gateway of claim 9 wherein the call control signals are for establishing a voice conference that includes the first and the second handset ports.”

The elements of this claim are described at least at page 11, lines 11-14:
“Similarly, if a handset user wishes to add another handset on the gateway to a telephone conversation, no signal needs to be passed to the IP call controller. Instead, the signals can be interpreted by the gateway which can itself ring the second handset telephone.”

Claim 11

Claim 11 recites:

“The gateway of claim 1 further comprising an address registration circuit that assigns an address for IP communications to each handset port to which a non-IP digital PBX telephone is coupled and registers each address for IP communications with the IP telephone call controller.”

The elements of this claim are described at least at page 9, lines 33-34: “In operation, the Handset Gateway 11 connects to the IP network 17 and performs one IP telephony endpoint registration with the IP call controller per handset device.”

Claim 12

Claim 12 recites:

“The gateway of claim 1 further comprising a registration circuit that registers the gateway with the IP telephone call controller for subsequent system management.”

The elements of this claim are described at least at page 10, line 33: “7. The Handset Gateway registers itself with the IP PBX for management purposes.”

Claim 13

Claim 13 recites:

“The gateway of claim 1 further comprising a general purpose IP router coupled to the IP port and to one or more IP sub-ports in the gateway for coupling other IP devices to the IP network, where the router gives voice quality preference to IP packets going to or from the one or more telephone handset ports over IP packets going to or from devices coupled to the one or more IP sub-ports.”

The elements of this claim are described at least at page 10, lines 25-26: “5. The handset gateway will act as a router for other IP devices as shown in Figures 1A and 1B, giving priority to the connected digital phones.”; and in Figures 1A and 1B, index number 18.

Claim 14

Claim 14 recites:

“The gateway of claim 1 having an external form of a plug-in card for an IP telephone call controller where the IP port has an external form for coupling to contacts in said IP telephone call controller.”

The elements of this claim are shown in Figure 1C, index number 40, “Handset Gateway Card,” and described at least at page 8, lines 28-29: “As shown in Figure 1C, the gateway may be implemented as a card 40 which plugs into a slot in a proprietary IP call controller 42.”

Claim 15

Claim 15 recites:

“A system wherein non-IP digital PBX telephone handsets are coupled to an IP telephone call controller in a public telephone network, comprising:

- (a) an IP telephone call controller operating a public telephone network according to public IP call control protocols and coupled to the global IP network;
- (b) a gateway coupled to the global IP network at a location remote from the IP telephone call controller;
- (c) one or more non-IP digital PBX telephone handsets coupled to the gateway via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway;
- (d) the gateway having one or more all-digital protocol translating circuits that:
 - (i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets;
 - (ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset;
 - (iii) transmit information identifying each handset to a remote IP server;
 - (iv) receive from the remote IP server programming information to cause the gateway to work with each handset;
 - (v) translate non-IP digital PBX call control signals received from the handset into IP call control signals according to the public IP call control protocols of the call controller; and
 - (vi) translate IP call control signals from the call controller into non-IP digital PBX call control signals for a handset coupled to the gateway.”

The elements of this claim are described at least on pages and lines as follows:
“A system wherein non-IP digital PBX telephone handsets are coupled to an IP telephone call controller in a public telephone network” is described at page 4, lines 30-

31: “In one aspect, the invention is a gateway for using non-IP digital PBX telephone handsets with an IP call controller.”

The limitation “(a) an IP telephone call controller operating a public telephone network according to public IP call control protocols and coupled to the global IP network” is described at least in Figure 1B, index number 24 and at page 8, lines 9-10: “Figure 1B shows the system configuration for use with a public Centrex IP call controller.”

The limitation “(b) a gateway coupled to the global IP network at a location remote from the IP telephone call controller” is described at least in Figure 1b, index number 11, and at page 8, lines 25-27: “As shown in Figure 1B, the gateway 11 might be configured to work with an IP Centrex service call controller 24 across any broadband IP network, including the Internet 23.”

The limitation “(c) one or more non-IP digital PBX telephone handsets coupled to the gateway via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway,” is described at least at page 9, lines 3-4 “Refer to Figure, 2, Handset Gateway Internal Design. Each traditional non-IP digital handset 10 is connected to the gateway through a Line interface 31...” and FIG. 2, 31. (Non-IP digital handsets 10 are shown in FIGS 1A, 1B, and 1C.)

The limitation “(d) the gateway having one or more all-digital protocol translating circuits that: (i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets,” is supported at least at page 9, lines 15-17: “First, [the handset gateway] sends a set of signals to each handset port that is designed to produce a different response from each different proprietary handset that the gateway is intended to work with.”

The limitation “(ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset” is supported at least at page 9, lines 17-18: “Then, the signal that is received in response is processed and compared to data stored in the ROM to identify the type of handset on that port.”

The limitation “(iii) transmit information identifying each handset to a remote IP server,” is supported at least at page 9, lines 24-26: “The gateway then sends via IP to

a web server operated by the gateway vendor a set of information identifying the type of IP call controller and the type of handset on each port.”

The limitation “(iv) receive from the remote IP server programming information to cause the gateway to work with each handset” is supported at least at page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller and the handsets.”

The limitation “(v) translate non-IP digital PBX call control signals received from the handset into IP call control signals according to the public IP call control protocols of the call controller” is supported at least at page 7, lines 16-18: “...the gateway has one or more protocol translating circuits that translate non-IP digital PBX call control signals received from a handset into IP call control signals...”

The limitation “(vi) translate IP call control signals from the call controller into non-IP digital PBX call control signals for a handset coupled to the gateway” is supported at least at page 7, lines 19-21: “The same circuit or a parallel circuit also translates IP call control signals from the call controller into non-IP digital PBX call control signals for a handset coupled to the gateway.”

Claim 16

Claim 16 recites:

“The system of claim 15 wherein the gateway further comprises a general purpose IP router coupled to the IP port and to one or more IP sub-ports in the gateway for coupling other IP devices to the global IP network, where the router gives voice quality preference to IP packets going to or from the one or more telephone handsets over IP packets going to or from devices coupled to the IP sub-ports.”

The elements of this claim are described at least at page 10, lines 25-26: “5. The handset gateway will act as a router for other IP devices as shown in Figures 1A and 1B, giving priority to the connected digital phones.”; and in Figures 1A and 1B, index number 18.

Claim 17

Claim 17 recites:

“A system wherein non-IP digital PBX telephone handsets are coupled to a proprietary IP telephone call controller in a private telephone network, comprising:

(a) a proprietary IP telephone call controller operating according to proprietary IP call control protocols and coupled to the global IP network;

(b) a gateway coupled to the global IP network at a location remote from the call controller;

(c) one or more non-IP digital PBX telephone handsets coupled to the gateway via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway;

(d) the gateway having one or more protocol translating circuits that:

(i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets;

(ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset;

(iii) transmit information identifying the type of each handset to a remote IP server;

(iv) receive from the server programming information to cause the one or more protocol translating circuits to work with the handset;

(v) directly translate non-IP digital call control signals received from the handset into IP call control signals according to proprietary IP call control protocols of the call controller; and

(vi) directly translate proprietary IP call control signals from the call controller into non-IP digital call control signals for a handset coupled to the gateway.”

The elements of this claim are described at least on pages and lines as follows:
“A system wherein non-IP digital PBX telephone handsets are coupled to a proprietary IP telephone call controller in a private telephone network” is described at page 4, lines

30-31: “In one aspect, the invention is a gateway for using non-IP digital PBX telephone handsets with an IP call controller.”

The limitation “(a) a proprietary IP telephone call controller operating according to proprietary IP call control protocols and coupled to the global IP network” is described at least in Figure 1A, index number 12 and at page 8, line 8: “Figure 1A shows the system configuration for use with a proprietary IP call controller.”

The limitation “(b) a gateway coupled to the global IP network at a location remote from the call controller” is described at least in Figure 1A, index number 11, and at page 8, lines 19-21: “Figure 1A shows the gateway in a system where the gateway 11 is remote from the IP call controller 12, coupled via an IP network 17, which might be a LAN or WAN or the Internet.”

The limitation “(c) one or more non-IP digital PBX telephone handsets coupled to the gateway via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway,” is described at least at page 9, lines 3-4 “Refer to Figure, 2, Handset Gateway Internal Design. Each traditional non-IP digital handset 10 is connected to the gateway through a Line interface 31...” and FIG. 2, 31. (Non-IP digital handsets 10 are shown in FIGS 1A, 1B, and 1C.)

The limitation “(d) the gateway having one or more protocol translating circuits that: (i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets,” is supported at least at page 9, lines 15-17: “First, [the handset gateway] sends a set of signals to each handset port that is designed to produce a different response from each different proprietary handset that the gateway is intended to work with.”

The limitation “ (ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset” is supported at least at page 9, lines 17-18: “Then, the signal that is received in response is processed and compared to data stored in the ROM to identify the type of handset on that port.”

The limitation “(iii) transmit information identifying each handset to a remote IP server,” is supported at least at page 9, lines 24-26: “The gateway then sends via IP to a web server operated by the gateway vendor a set of information identifying the type of IP call controller and the type of handset on each port.”

The limitation “(iv) receive from the remote IP server programming information to cause the gateway to work with each handset” is supported at least at page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller and the handsets.”

The limitation “(v) directly translate non-IP digital PBX call control signals received from the handset into IP call control signals according to the public IP call control protocols of the call controller” is supported at least at page 7, lines 16-18: “...the gateway has one or more protocol translating circuits that translate non-IP digital PBX call control signals received from a handset into IP call control signals...”

The limitation “(vi) directly translate proprietary IP call control signals from the call controller into non-IP digital call control signals for a handset coupled to the gateway” is supported at least at page 7, lines 19-21: “The same circuit or a parallel circuit also translates IP call control signals from the call controller into non-IP digital PBX call control signals for a handset coupled to the gateway.”

Claim 18

Claim 18 recites:

“The system of claim 17 wherein the gateway further comprises a general purpose IP router coupled to the IP port and to one or more IP sub-ports in the gateway for coupling other IP devices to the global IP network, where the router gives voice quality preference to IP packets going to or from the one or more telephone handsets over IP packets going to or from devices coupled to the IP sub-ports.”

The elements of this claim are described at least at page 10, lines 25-26: “5. The handset gateway will act as a router for other IP devices as shown in Figures 1A and 1B, giving priority to the connected digital phones.”; and in Figures 1A and 1B, index number 18.

Claim 19

Claim 19 recites:

“A system wherein non-IP digital PBX telephone handsets are coupled to a gateway in the form of a plug-in card in a proprietary IP telephone call controller in a private telephone network, comprising:

- (a) a proprietary IP telephone call controller operating according to proprietary IP call control protocols and coupled to the global IP network;
- (b) a gateway card plugged into the call controller; and
- (c) one or more non-IP digital PBX telephone handsets coupled to the gateway card via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway card;
- (d) the gateway card having one or more protocol translating circuits that:
 - (i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets;
 - (ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset;
 - (iii) transmit information identifying the type of each handset to a remote IP server;
 - (iv) receive from the remote IP server programming information to cause the one or more protocol translating circuits to work with the handset;
 - (v) translate non-IP digital call control signals received from the handset directly into IP call control signals according to proprietary IP call control protocols of the call controller; and
 - (vi) translate proprietary IP call control signals from the call controller directly into non-IP digital call control signals for a handset coupled to the gateway.”

The elements of this claim are described at least on pages and lines as follows:
“A system wherein non-IP digital PBX telephone handsets are coupled to a gateway in the form of a plug-in card in a proprietary IP telephone call controller in a private

telephone network” is described by Figure 1C (Handset Gateway Card 40) and at page 4, lines 30-31: “In one aspect, the invention is a gateway for using non-IP digital PBX telephone handsets with an IP call controller.”

The limitation “(a) a proprietary IP telephone call controller operating according to proprietary IP call control protocols and coupled to the global IP network” is described at least in Figure 1A, index number 12 and at page 8, line 8: “Figure 1A shows the system configuration for use with a proprietary IP call controller.”

The limitation “(b) a gateway card plugged into the call controller” is described at least in Figure 1C, index number 40, and at page 8, lines 28-29: “As shown in Figure 1C, the gateway may be implemented as a card 40 which plugs into a slot in a proprietary IP call controller 42.”

The limitation “(c) one or more non-IP digital PBX telephone handsets coupled to the gateway card via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway card,” is described at least at page 9, lines 3-4 “Refer to Figure, 2, Handset Gateway Internal Design. Each traditional non-IP digital handset 10 is connected to the gateway through a Line interface 31...” and FIG. 2, 31. (Non-IP digital handsets 10 are shown in FIGS 1A, 1B, and 1C.)

The limitation “(d) the gateway card having one or more protocol translating circuits that: (i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets,” is supported at least at page 9, lines 15-17: “First, [the handset gateway] sends a set of signals to each handset port that is designed to produce a different response from each different proprietary handset that the gateway is intended to work with.”

The limitation “(ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset” is supported at least at page 9, lines 17-18: “Then, the signal that is received in response is processed and compared to data stored in the ROM to identify the type of handset on that port.”

The limitation “(iii) transmit information identifying each handset to a remote IP server,” is supported at least at page 9, lines 24-26: “The gateway then sends via IP to

a web server operated by the gateway vendor a set of information identifying the type of IP call controller and the type of handset on each port.”

The limitation “(iv) receive from the remote IP server programming information to cause the one or more protocol translating circuits to work with each handset” is supported at least at page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller and the handsets.”

The limitation “(v) translate non-IP digital call control signals received from the handset directly into IP call control signals according to proprietary IP call control protocols of the call controller” is supported at least at page 7, lines 16-18: “...the gateway has one or more protocol translating circuits that translate non-IP digital PBX call control signals received from a handset into IP call control signals...”

The limitation “(vi) translate proprietary IP call control signals from the call controller directly into non-IP digital call control signals for a handset coupled to the gateway” is supported at least at page 7, lines 19-21: “The same circuit or a parallel circuit also translates IP call control signals from the call controller into non-IP digital PBX call control signals for a handset coupled to the gateway.”

Claim 34

Claim 34 recites:

“A method for translating call control signals between an IP network and non-IP digital PBX telephone handsets comprising:

sending to a handset port a set of signals designed to produce a different response from different non-IP digital handsets;

receiving a response from the handset port a response indicative of the type of non-IP digital handset coupled to the handset port;

transmitting the actual signals received from the handset port to a remote IP server via an IP port;

receiving programming information from the remote IP server for translating signals from the non-IP digital handset coupled to the handset port;

receiving a first non-IP digital PBX telephone call control signal at the handset port;

translating the first non-IP digital PBX telephone call control signal directly into a first IP telephone call control signal;
delivering the first IP telephone call control signal to an IP port;
receiving a second IP telephone call control signal at the IP port;
translating the second IP telephone call control signal directly into a second non-IP digital PBX telephone call control signal; and
delivering the second non-IP digital PBX telephone call control signal to the handset port.”

The elements of this claim are described at least on pages and lines as follows:
“A method for translating call control signals between an IP network and non-IP digital PBX telephone handsets” is inherent in the Abstract, first line “A gateway 11 for using non-IP digital telephone handsets 10 with an IP call controller (“PBX”) 12, 24, 42.”

“Sending to a handset port a set of signals designed to produce a different response from different non-IP digital handsets” is supported at least at page 9, lines 15-17: “First, [the handset gateway] sends a set of signals to each handset port that is designed to produce a different response from each different proprietary handset that the gateway is intended to work with.”

“Receiving a response from the handset port a response indicative of the type of non-IP digital handset coupled to the handset port” is supported at least at page 9, line 17, “Then, the signal that is received...”

“Transmitting the actual signals received from the handset port to a remote IP server via an IP port” is supported at least at page 6, lines 1-3: “As described above, the method can be performed by passing to the server the actual signals received from the handset...”

“Receiving programming information from the remote IP server for translating signals from the non-IP digital handset coupled to the handset port” is supported at least at page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller and the handsets.”

“Receiving a first non-IP digital PBX telephone call control signal at the handset port; translating the first non-IP digital PBX telephone call control signal directly into a

first IP telephone call control signal; and delivering the first IP telephone call control signal to an IP port” are supported at least at page 7, lines 16-18: “...the gateway has one or more protocol translating circuits that translate non-IP digital PBX call control signals received from a handset into IP call control signals...

“Receiving a second IP telephone call control signal at the IP port; translating the second IP telephone call control signal directly into a second non-IP digital PBX telephone call control signal; and delivering the second non-IP digital PBX telephone call control signal to the handset port” is supported at least at page 7, lines 19-21: “The same circuit or a parallel circuit also translates IP call control signals from the call controller into non-IP digital PBX call control signals for a handset coupled to the gateway.”

Claim 35

Claim 35 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 wherein translating telephone call control signals occurs in a protocol translator circuit; and further comprising:

programming the protocol translator circuit to translate telephone call control signals from and to a plurality of protocols for non-IP digital PBX telephone handsets.”

The limitation, “wherein translating telephone call control signals occurs in a protocol translator circuit” is shown in the block diagram of FIG. 2 including the CPU 38, ROM 36, and RAM 37, and is described at least at page 9, line 30: “The central processor 38 performs the messaging translation.”

The limitation, “further comprising: programming the protocol translator circuit to translate telephone call control signals from and to a plurality of protocols for non-IP digital PBX telephone handsets” is described at least at page 9, lines 15 – 27.

Claim 36

Claim 36 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 wherein translating telephone call control signals occurs in a protocol translator circuit; and further comprising:

programming the protocol translator circuit to translate telephone call control signals from and to a plurality of protocols for IP telephone call controllers.”

The elements of this claim are described at least on page 5, lines 8-10: “However, in the preferred embodiments, it is programmable so that it can be programmed to work with any of many different IP call controllers...”

Claim 37

Claim 37 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 wherein translating telephone call control signals occurs in a protocol translator circuit; and further comprising:

programming the protocol translator circuit by IP download via the IP port.”

The elements of this claim are described at least at page 9, lines 26-27: “The server then sends to the gateway the latest program designed to cause the gateway to work well with the controller and the handsets.”

Claim 38

Claim 38 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 37 further comprising:

establishing an IP session between a gateway and an IP service; and
initiating the download in response to establishing the IP session.”

The elements of this claim are described at least at page 5, lines 17-19:
“The download of such parameters or instructions may happen automatically once an IP session is established between the gateway and an IP device.”

Claim 39

Claim 39 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 further comprising:

receiving at the handset port a third non-IP digital PBX call control signal; and
returning a fourth non-IP digital PBX call control signal to the handset port
without delivering a corresponding IP telephone call control signal to the IP port.”

The limitations: “receiving at the handset port a third non-IP digital PBX call control signal; and returning a fourth non-IP digital PBX call control signal to the handset port without delivering a corresponding IP telephone call control signal to the IP port” are described at least at page 11, lines 11-14: “Similarly, if a handset user wishes to add another handset on the gateway to a telephone conversation, no signal needs to be passed to the IP call controller. Instead, the signals can be interpreted by the gateway which can itself ring the second handset telephone.”

Claim 40

Claim 40 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 further comprising:

receiving at a first handset port a fifth non-IP digital PBX call control signal; and
sending a sixth non-IP digital PBX call control signal to a second handset port.”

The elements of this claim are described at least at page 11, lines 11-14:
“Similarly, if a handset user wishes to add another handset on the gateway to a telephone conversation, no signal needs to be passed to the IP call controller. Instead,

the signals can be interpreted by the gateway which can itself ring the second handset telephone.”

Claim 41

Claim 41 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 further comprising:

assigning an address for IP communications to each handset port to which a non-IP digital PBX telephone is coupled; and

registering each address for IP communications with the IP telephone call controller.”

The limitations, “assigning an address for IP communications to each handset port to which a non-IP digital PBX telephone is coupled; and registering each address for IP communications with the IP telephone call controller” are supported at least at page 9, lines 33-34: “In operation, the Handset Gateway 11 connects to the IP network 17 and performs one IP telephony endpoint registration with the IP call controller per handset device.”

Claim 42

Claim 42 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 further comprising:

routing non-voice IP data packets between the IP port and one or more IP sub-ports;

while providing quality-of-service preference to voice IP data packets translated to and from handset ports coupled to non-IP digital PBX telephone handsets.”

The elements of this claim are described at least at page 10, lines 25-26: “5. The handset gateway will act as a router for other IP devices as shown in Figures 1A and

1B, giving priority to the connected digital phones.”; and in Figures 1A and 1B, index number 18.

Claim 43

Claim 43 recites:

“The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 wherein delivering the first IP telephone call control signal to the IP port and receiving the second IP telephone call control signal from the IP port further comprises respectively transmitting and receiving corresponding electrical signals via plug-in contacts to and from a coupled IP telephone call controller.”

The elements of this claim are shown in Figure 1C, index number 40, “Handset Gateway Card,” and described at least at page 8, lines 28-29: “As shown in Figure 1C, the gateway may be implemented as a card 40 which plugs into a slot in a proprietary IP call controller 42.”

Claim 44

Claim 44 recites:

“The gateway of claim 1, wherein the one or more handset ports, IP port, and protocol translator circuit are disposed in a single housing.”

The elements of this claim are described at least in Figure 1A and 1B, index number 11; Figure 1C, index numbers 40, 42; Figure 2 index numbers 31, 39, and 38, 36, 37, respectively; and at least at page 4, lines 3 – page 5, line 5: “In one aspect, the invention is a gateway for using non-IP digital PBX telephone handsets with an IP call controller. The gateway has one or more ports for coupling non-IP digital PBX telephone handsets to the gateway. It also has an IP port for coupling to an IP network device for communicating in Internet Protocol on an IP network. Inside the gateway device is a translator circuit that translates non-IP digital PBX telephone call control signals received at a handset port into IP telephone call control signals for an IP telephone call controller and delivers them to the IP port. The same circuit or a parallel

circuit also translates IP telephone call control signals received at the IP port from an IP telephone call controller into non-IP digital PBX telephone call control signals and delivers them to the one or more handset ports.”

Claim 45

Claim 45 recites:

“The gateway of claim 1 wherein the one or more handset ports, IP port, and protocol translator circuit are configured to communicate through a fully digital signal path.”

The elements of this claim are described at least in Figure 2. The entire signal path 31, 32, 35, 36, 37, 38, 39 is digital. No analog circuitry is disclosed or used.

Claim 46

Claim 46 recites:

“The gateway of claim 1, wherein the gateway is further configured to automatically determine the operating characteristics of handsets coupled to each handset port by:

sending to each handset port a set of signals designed to produce a different response from each different proprietary handset that the gateway is intended to work with; and

processing the response that is received from each handset port to compare to data stored in memory to identify the type of handset on the handset port.”

The limitation, “sending to each handset port a set of signals designed to produce a different response from each different proprietary handset that the gateway is intended to work with” is described at least at page 9, lines 15-17: “First, [the handset gateway] sends a set of signals to each handset port that is designed to produce a different response from each different proprietary handset that the gateway is intended to work with.”

The limitation, “processing the response that is received from each handset port to compare to data stored in memory to identify the type of handset on the handset port” is described at least at page 9, lines 17-18: “Then, the signal that is received in response is processed and compared to data stored in the ROM to identify the type of handset on that port.”

(H) Grounds of rejection to be reviewed on appeal

1. Claims 1-13, 15-18, 34-42 and 44-46 are rejected under 35 U.S.C § 103(a) as being unpatentable over Canon (US 6,842,447) in view of Oran (US 6,275,574) and Hyams et al. (US 7,415,029)
2. Claims 14, 19 and 43 are rejected under 35 U.S.C § 103(a) as being unpatentable over Canon, Oran, and Hyams as applied to claims 1/34 above, and further in view of Bailis (WO00/11818)

(I) Argument

Claims 1-13, 15-18, 34-42 and 44-46 are rejected under 35 U.S.C § 103(a) as being unpatentable over Canon (US 6,842,447) in view of Oran (US 6,275,574) and Hyams et al. (US 7,415,029)

Claim 1

Claim 1 recites, in part, “the gateway is further configured to automatically determine the operating characteristics of handsets coupled to each handset port by, for each handset port, receiving a signal corresponding a coupled handset; transmitting information identifying the handset to a remote IP server via the IP port; and receiving, from the server, programming information to cause the gateway to work with the handset.”

Cannon, Oran, and Hyams, alone and in combination, fail to disclose or reasonably suggest “for each handset port, receiving a signal corresponding a coupled handset; transmitting information identifying the handset to a remote IP server via the IP port; and receiving, from the server, programming information to cause the gateway to work with the handset.”

The Examiner agrees that neither Cannon nor Oran provide relevant disclosure.

Hyams does not disclose automatically determining the operating characteristics of handsets coupled to each handset port, or the particular recitation of how the operating characteristics of the handsets are determined by sending information about the handset a remote IP server and receiving programming information for operating with the handset.

Per Hyams, FIG. 4, a user defines a state, an event, or an action of a telephony protocol (410) [emphasis added]. The user-defined states, event, or action is then downloaded to a CAS engine (420). The telephony protocol of the CAS engine corresponding to idle telephone lines associated with the CAS engine are then changed based on the user defined state, event, or action (430). At column 3, lines 6 – 10, Hyams states, “...various tables may be loaded into the CAS module by the management subsystem.

Applicant's agent respectfully points out that the present application discloses such manual programming in the alternative at page 5, lines 10-12: "Such programming may be done by coupling to the gateway a wire connected to a user interface device, such as a personal computer with a keyboard and monitor." However, this is not the mode of programming recited by claim 1.

Hyams apparently does not disclose that loading tables into the CAS module may be performed automatically. Hyams does disclose, "other methods of downloading the application to the CAS engine may be used. This may be obtained by command line interpretation, SNMP or other protocols from remote sources such as the call agent." However, Hyams does not disclose or reasonably suggest that the CAS module or the management subsystem may operate by "automatically determine the operating characteristics of handsets coupled to each handset port by receiving a signal corresponding a coupled handset; transmitting information identifying the handset to a remote IP server via the IP port; and receiving, from the server, programming information to cause the gateway to work with the handset."

Moreover, Hyams does not disclose or reasonably suggest that the CAS module is capable of "determining the operating characteristics of handsets coupled to each handset port...," as recited by claim 1. Hyams apparently assumes that each coupled handset operates using the same non-IP digital call control signals, and the CAS module thus treats all handsets the same. This is different than determining the operating characteristics of handsets coupled to each handset port.

Therefore the combination of Cannon, Oran, and Hyams fails to disclose or reasonably suggest all the limitations of claim 1, and claim 1 is allowable over Cannon, Oran, and Hyams.

Claims 2 - 13

Claims 2-13 are allowable by virtue of their dependence from claim 1.

Claim 15

Claim 15 is amended in a way similar to the amendment to claim 1. Claim 15 is allowable over Cannon, Oran, and Hyams for reasons similar to those given for claim 1.

Claim 16

Claim 16 is allowable by virtue of its dependence from claim 15.

Claim 17

Claim 17 is amended. Claim 17 is allowable for reasons similar to those given for claim 1.

Claim 18

Claim 18 is allowable by virtue of its dependence from claim 17.

Claim 34

Claim 34 is amended. Claim 34 is allowable for reasons similar to those given for claim 1.

Claims 35 - 42

Claims 35-42 are allowable by virtue of their dependence from claim 34.

Claims 44-46

Claims 44-46 are allowable by virtue of their dependence from claim 1.

Claims 14, 19 and 43 are rejected under 35 U.S.C § 103(a) as being unpatentable over Canon, Oran, and Hyams as applied to claims 1/34 above, and further in view of Bailis (WO00/11818)

Claims 14 and 43

Claims 14 and 43 are allowable by virtue of their respective dependence from claims 1 and 34 and for at least the reasons given for claims 1 and 34.

Claim 19

Claim 19 is allowable for reasons similar to those given for claim 1 in that Cannon, Oran, Hyams, and Bailis, alone and in combination, fail to disclose or reasonably suggest all the limitations of claim 19.

The filing of this document constitutes a request for any needed extension of time. The Commissioner is hereby authorized to charge any deficiency of fees submitted herewith, or credit any overpayment, to Deposit Account No. 07-1897.

Respectfully submitted,

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Enclosures: Appendices A-C

(J) Claims appendix (Appendix A)

Appendix A (the claims appendix) is a copy of all claims involved in the Appeal, as required under 37 C.F.R. § 41.37(c)(1)(viii).

1. (Previously Presented) A gateway for using non-IP digital PBX telephone handsets with an IP call controller, comprising:

- (d) one or more handset ports for coupling to one or more non-IP digital PBX telephone handsets;
- (e) an IP port for coupling to an IP network device; and
- (f) a protocol translator circuit that
 - (iii) translates non-IP digital PBX telephone call control signals received at a handset port directly into IP telephone call control signals for an IP telephone call controller and delivers them to the IP port; and
 - (iv) translates IP telephone call control signals received at the IP port from an IP telephone call controller directly into non-IP digital PBX telephone call control signals and delivers them to the one or more handset ports; and

wherein the gateway is further configured to automatically determine the operating characteristics of handsets coupled to each handset port by, for each handset port, receiving a signal corresponding a coupled handset; transmitting information identifying the handset to a remote IP server via the IP port; and receiving, from the server, programming information to cause the gateway to work with the handset.

2. (Original) The gateway of claim 1 wherein the protocol translator circuit is programmable such that it can be programmed to operate properly with each of a plurality of protocols for non-IP digital PBX telephone call control signals.

3. (Original) The gateway of claim 1 wherein the protocol translator circuit is programmable such that it can be programmed to operate properly with each of a plurality of protocols for IP telephone call controllers.
4. (Original) The gateway of claim 2 wherein the protocol translator circuit is programmed by IP download via the IP port.
5. (Original) The gateway of claim 3 wherein the protocol translator circuit is programmed by IP download via the IP port.
6. (Original) The gateway of claim 4 wherein the download is initiated in response to establishment of an IP session between the gateway and an IP service.
7. (Original) The gateway of claim 5 wherein the download is initiated in response to establishment of an IP session between the gateway and an IP service.
8. (Original) The gateway of claim 1 wherein, upon receipt at a handset port of one or more predetermined non-IP digital PBX call control signals, instead of or in addition to translating the signal into an IP telephone call control signal, the protocol translator circuit returns a non-IP digital PBX call control signal to the handset port.
9. (Original) The gateway of claim 1 wherein the one or more non-IP digital PBX handset ports includes a first handset port and a second handset port wherein, upon receipt at the first handset port of one or more predetermined non-IP digital PBX call control signals, instead of or in addition to translating the signal into an IP telephone call control signal, the protocol translator circuit sends a non-IP digital PBX call control signal to the second handset port.
10. (Original) The gateway of claim 9 wherein the call control signals are for establishing a voice conference that includes the first and the second handset ports.

11. (Original) The gateway of claim 1 further comprising an address registration circuit that assigns an address for IP communications to each handset port to which a non-IP digital PBX telephone is coupled and registers each address for IP communications with the IP telephone call controller.

12. (Original) The gateway of claim 1 further comprising a registration circuit that registers the gateway with the IP telephone call controller for subsequent system management.

13. (Original) The gateway of claim 1 further comprising a general purpose IP router coupled to the IP port and to one or more IP sub-ports in the gateway for coupling other IP devices to the IP network, where the router gives voice quality preference to IP packets going to or from the one or more telephone handset ports over IP packets going to or from devices coupled to the one or more IP sub-ports.

14. (Original) The gateway of claim 1 having an external form of a plug-in card for an IP telephone call controller where the IP port has an external form for coupling to contacts in said IP telephone call controller.

15. (Previously Presented) A system wherein non-IP digital PBX telephone handsets are coupled to an IP telephone call controller in a public telephone network, comprising:

- (e) an IP telephone call controller operating a public telephone network according to public IP call control protocols and coupled to the global IP network;
- (f) a gateway coupled to the global IP network at a location remote from the IP telephone call controller;
- (g) one or more non-IP digital PBX telephone handsets coupled to the gateway via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway;
- (h) the gateway having one or more all-digital protocol translating circuits that:

- (i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets;
- (ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset;
- (iii) transmit information identifying each handset to a remote IP server;
- (iv) receive from the remote IP server programming information to cause the gateway to work with each handset;
- (v) translate non-IP digital PBX call control signals received from the handset into IP call control signals according to the public IP call control protocols of the call controller; and
- (vi) translate IP call control signals from the call controller into non-IP digital PBX call control signals for a handset coupled to the gateway.

16. (Original) The system of claim 15 wherein the gateway further comprises a general purpose IP router coupled to the IP port and to one or more IP sub-ports in the gateway for coupling other IP devices to the global IP network, where the router gives voice quality preference to IP packets going to or from the one or more telephone handsets over IP packets going to or from devices coupled to the IP sub-ports.

17. (Previously Presented) A system wherein non-IP digital PBX telephone handsets are coupled to a proprietary IP telephone call controller in a private telephone network, comprising:

- (d) a proprietary IP telephone call controller operating according to proprietary IP call control protocols and coupled to the global IP network;
- (e) a gateway coupled to the global IP network at a location remote from the call controller;
- (f) one or more non-IP digital PBX telephone handsets coupled to the gateway via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway;
- (d) the gateway having one or more protocol translating circuits that:

- (i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets;
- (ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset;
- (iii) transmit information identifying the type of each handset to a remote IP server;
- (iv) receive from the server programming information to cause the one or more protocol translating circuits to work with the handset;
- (v) directly translate non-IP digital call control signals received from the handset into IP call control signals according to proprietary IP call control protocols of the call controller; and
- (vi) directly translate proprietary IP call control signals from the call controller into non-IP digital call control signals for a handset coupled to the gateway.

18. (Original) The system of claim 17 wherein the gateway further comprises a general purpose IP router coupled to the IP port and to one or more IP sub-ports in the gateway for coupling other IP devices to the global IP network, where the router gives voice quality preference to IP packets going to or from the one or more telephone handsets over IP packets going to or from devices coupled to the IP sub-ports.

19. (Previously Presented) A system wherein non-IP digital PBX telephone handsets are coupled to a gateway in the form of a plug-in card in a proprietary IP telephone call controller in a private telephone network, comprising:

- (e) a proprietary IP telephone call controller operating according to proprietary IP call control protocols and coupled to the global IP network;
- (f) a gateway card plugged into the call controller; and
- (g) one or more non-IP digital PBX telephone handsets coupled to the gateway card via wires for carrying non-IP digital PBX telephone call control signaling between the handset and the gateway card;
- (h) the gateway card having one or more protocol translating circuits that:

- (i) send a set of signals to each non-IP digital PBX telephone handset designed to produce a different response from each of a plurality of different proprietary handsets;
- (ii) process the response or responses that are received to identify the type of each non-IP digital PBX telephone handset;
- (iii) transmit information identifying the type of each handset to a remote IP server;
- (iv) receive from the remote IP server programming information to cause the one or more protocol translating circuits to work with the handset;
- (v) translate non-IP digital call control signals received from the handset directly into IP call control signals according to proprietary IP call control protocols of the call controller; and
- (vi) translate proprietary IP call control signals from the call controller directly into non-IP digital call control signals for a handset coupled to the gateway.

20-33. (Canceled)

34. (Previously Presented) A method for translating call control signals between an IP network and non-IP digital PBX telephone handsets comprising:

 sending to a handset port a set of signals designed to produce a different response from different non-IP digital handsets;

 receiving a response from the handset port a response indicative of the type of non-IP digital handset coupled to the handset port;

 transmitting the actual signals received from the handset port to a remote IP server via an IP port;

 receiving programming information from the remote IP server for translating signals from the non-IP digital handset coupled to the handset port;

 receiving a first non-IP digital PBX telephone call control signal at the handset port;

 translating the first non-IP digital PBX telephone call control signal directly into a first IP telephone call control signal;

delivering the first IP telephone call control signal to an IP port;
receiving a second IP telephone call control signal at the IP port;
translating the second IP telephone call control signal directly into a second non-IP digital PBX telephone call control signal; and
delivering the second non-IP digital PBX telephone call control signal to the handset port.

35. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 wherein translating telephone call control signals occurs in a protocol translator circuit; and further comprising:

programming the protocol translator circuit to translate telephone call control signals from and to a plurality of protocols for non-IP digital PBX telephone handsets.

36. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 wherein translating telephone call control signals occurs in a protocol translator circuit; and further comprising:

programming the protocol translator circuit to translate telephone call control signals from and to a plurality of protocols for IP telephone call controllers.

37. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 wherein translating telephone call control signals occurs in a protocol translator circuit; and further comprising:

programming the protocol translator circuit by IP download via the IP port.

38. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 37 further comprising:

establishing an IP session between a gateway and an IP service; and
initiating the download in response to establishing the IP session.

39. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 further comprising:
receiving at the handset port a third non-IP digital PBX call control signal; and
returning a fourth non-IP digital PBX call control signal to the handset port without delivering a corresponding IP telephone call control signal to the IP port.

40. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 further comprising:
receiving at a first handset port a fifth non-IP digital PBX call control signal; and
sending a sixth non-IP digital PBX call control signal to a second handset port.

41. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 further comprising:
assigning an address for IP communications to each handset port to which a non-IP digital PBX telephone is coupled; and
registering each address for IP communications with the IP telephone call controller.

42. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 further comprising:
routing non-voice IP data packets between the IP port and one or more IP sub-ports;
while providing quality-of-service preference to voice IP data packets translated to and from handset ports coupled to non-IP digital PBX telephone handsets.

43. (Previously Presented) The method for translating call control signals between an IP network and non-IP digital PBX handsets of claim 34 wherein delivering the first IP telephone call control signal to the IP port and receiving the second IP telephone call control signal from the IP port further comprises respectively transmitting

and receiving corresponding electrical signals via plug-in contacts to and from a coupled IP telephone call controller.

44. (Previously Presented) The gateway of claim 1, wherein the one or more handset ports, IP port, and protocol translator circuit are disposed in a single housing.

45. (Previously Presented) The gateway of claim 1 wherein the one or more handset ports, IP port, and protocol translator circuit are configured to communicate through a fully digital signal path.

46. (Previously Presented) The gateway of claim 1, wherein the gateway is further configured to automatically determine the operating characteristics of handsets coupled to each handset port by:

sending to each handset port a set of signals designed to produce a different response from each different proprietary handset that the gateway is intended to work with; and

processing the response that is received from each handset port to compare to data stored in memory to identify the type of handset on the handset port.

(K) Evidence appendix (Appendix B)

Appendix B includes all evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or of any other evidence entered by the Examiner and relied upon by Appellants in the Appeal, as required under 37 C.F.R. § 41.37(c)(1)(ix).

No evidence is submitted.

(L) Related proceedings appendix (Appendix C)

Appendix C indicates there are no related interferences, appeals, or judicial proceedings known to Appellant, Appellant's agent, or the Assignee, which are related to, directly affect or are directly affected by, or which have a bearing on the decision of the Board in the pending Appeal.